Malthurst Limited

Malthurst Limited
Vincent House
4 Grove Lane, Epping
Essex CM16 4LH

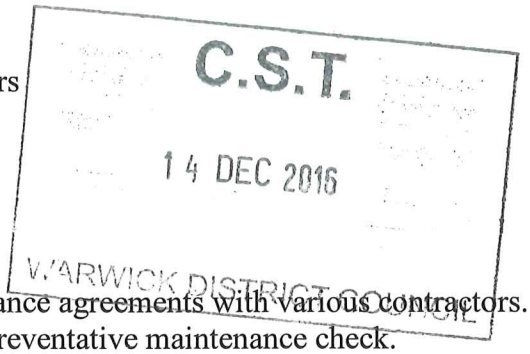
Telephone 01992 571937
Facsimile 01992 571950
E-mail
firstname.lastname@malthurst.co.uk

Warwick Road Service Station
Warwick Road
Kenilworth
Warwickshire
CV8 1FB
Permit Reference: 44

DOCUMENT 01

B2.1
We have installed new Tokheim Quantium 510T 6 hose pumps complete with Tokheim Electronically Controlled Vapour Recovery (VR2) system and Mini-Master controller.

B2.2
System will collect between 85 and 102% of vapours



B2.3
Document Reference 02

B2.4
All pump equipment is subject to standard maintenance agreements with various contractors. The automatic VR2 equipment is subject to a 3 yearly preventative maintenance check.
On top of this all MRH sites are monitored by Fairbanks and any noted discrepancies in pump performance are flagged to relevant internal parties for action to be taken.

B2.5
All staff are shown the system on commissioning. We opt for an automatic system so that there is no requirement for technical training of site staff. The VR2 system uses a set of LED traffic lights in the pump head – a green light signifies that the system is operating correctly and a red light indicates that there is an issue and that a call must be placed with the appropriate contractor for action to be taken. If the red light is ignored, after a period of days the pump will stop working.

B2.6
Should vapour containment fail either during petrol delivery for during normal site operations, then a call would be placed via our maintenance call desk for the appropriate contractor to attend site to correct any issues.

Failure of the Stage 2 VR equipment is indicated in B2.5, ie once the equipment goes into Red (indicating an error) then after a short period of time the pumps will stop working.

B2.7
Document Reference: 03 & 04

B2.8
All vapour pipework will undergo a vapour tightness test every 3 years.The automatic stage2 VR system will be checked every 3 years for conformity.

Part B Application form

Application to vary a permit for a Part B service station to add PVR Stage II

Local Authority Pollution Prevention and Control
Pollution Prevention and Control Act, 1999
Environmental Permitting (England and Wales) Regulations 2007

Introduction

When to use this form
Use this form if you are applying for a variation to an existing service station permit in order to extend it to cover the operation of PVR Stage II.

A fee is only required to be enclosed if the variation involves a 'substantial change'. A substantial change is defined as "a change in operation which, in the opinion of the competent authority [the regulator] may have significant **negative** effects on human beings or the environment". (Closure of an existing service station and the building of a new replacement station at another location is likely to require a full fresh application, ie not constitute a variation.)

When complete, send the form and the fee and any additional information to:

Health & Community Protection
Warwick District Council
Riverside House
Milverton Hill
Royal Lemington Spa
CV32 5HZ

If you need help and advice
We have made the application form as straightforward as possible, but please get in touch with us at the local authority address given above if you need any advice on how to set out the information we need.

LAPPC application form: to be completed by the operator		
For Local Authority use		
Application reference	**Officer reference**	**Date received**

A1.1. **Name of the premises**

.....Warwick Road Service Station .....

A1.2. Please give the **address of the premises**

.....Warwick Road, Kenilworth, Warwickshire ....

.....

.....

Postcode ..... CV8 1FB .....Telephone..... 01926 852972 .....

A1.3. Reference number of existing PVR Stage I permit for the installation

..... 44 .....

A2.1. **The applicant** - Please provide the full name of company or corporate body or the name of the sole trader or the names of the partners

..... Malthurst Limited .....

Trading/business name (if different)

.....

Registered Office address

.... Vincent House .....

..... 4 Grove Lane .....

..... Epping, Essex .....
Postcode ... CM16 4LH .....Telephone..... 01992 668704 .....

A2.2. **Holding companies**

Is the operator a subsidiary of a holding company within the meaning of section 1159 of the Companies Act 2006?

☐ No

■ Yes

If yes? Name of ultimate holding company ..... MRH (GB) Limited .....

Ultimate holding company registered office address

..... Vincent House, ...

..... 4 Grove Lane, ...

.....Epping, Essex .....

Postcode ..... CM16 4LH .....Telephone..... 01992 668704 .....

A3 **Who can we contact about your application?**

It will help to have someone who we can contact directly with any questions about your application. The person you name should have the authority to act on behalf of the operator - This can be an agent or consultant.

Name ..... Joanne Richards .....

Position ..... Operation Services Controller – Licences & Permits .....

Address

..... Vincent House .....

..... 4 Grove Lane .....

..... Epping, Essex .....

Postcode ... CM16 4LH .....Telephone..... 01992 668704 .....

Fax number 01992 668663 . email address ... joanne.richards@malthurst.co.uk

B. About the installation

B1.1 Is PVR Stage II equipment already fitted:

☐ No

■ Yes

B1.2 If the answer to B1.1 is "no",

a) when do you intend to fit it .....

b) what arrangements are in place (eg contract with installers) to fit it

.....

B2.1 What systems have been installed or is it intended to install to comply with PVR Stage II?

.....

.....

Doc Reference ..... 001.....

B2.2 What is or will be the vapour/petrol ratio?

.....See Document 001 .....

B2.3 Please attach process diagrams and plans of VPR Stage II system, including pipework layout.

Doc Reference ..... See Document 002 .....

B2.4 What arrangements will be/have been made for preventative maintenance of the PVR Stage II equipment.

....

.....

.....

Doc Reference ... 001 .....

B2.5 What arrangements will be/have been made to ensure relevant staff are adequately familiar with/trained in the use of the PVR Stage II equipment.

.....

.....

.....

Doc Reference ... 001.....

B2.6 Please attach procedures and contingency measures in the event of vapour containment equipment failure (including the system for vapour recovery during filling of vehicle petrol tanks).

Doc Reference ..... 001.....

B2.7 Please provide a certificate to confirm conformity of the PVR Stage II equipment with approval for use under the regulatory regimes of at least one European Union or European Free Trade Association country and to confirm that the hydrocarbon capture efficiency of the equipment is not less than 85% (ie that at least 85% of the displaced vapours are recovered, according to the relevant 'type approval' test (see Section 5.16 of PG1/14(06)), expressed as the ratio of the volume of hydrocarbon vapours displaced to the volume of petrol discharged.

Doc Reference ... 003 & 004.....

B2.8 What arrangements will be put in place to test delivery systems and vapour recovery systems, including the testing of the vapour/petrol ratio? Please provide details of testing of the vapour containment integrity in accordance with the manufacturer's specifications (to be undertaken prior to commissioning and periodically at least once every 3 years thereafter and always following substantial changes or significant events that lead to the removal or replacement of any of the components required to ensure the integrity of the containment system).

Doc Reference ... 001 .....

B2.9 Is an "automatic monitoring system" installed, or will it be installed, to automatically detect faults in the proper functioning of the petrol vapour recovery system including the automatic monitoring system; to indicate faults to the operator; and to automatically cut off the flow of fuel on the faulty delivery system if the fault is not rectified within 1 week?

☐ No

■ Yes

B3 Additional Information

Please supply any additional information, which you would like us to take account of in considering this application.

Doc Reference: .....

C1. **Fees and Charges**

C1.1. Please enclose the relevant sum if this variation involves a substantial change, and state the amount enclosed.

£..... 98.00.....

Cheques should be made payable to: Warwick District Council

We will confirm receipt of this fee when we write to you acknowledging your application.

C1.2. Please give any company purchase order number or other reference you wish to be used in relation to this fee.

C2. Annual charges

If we grant you a permit, you will be required to pay an annual subsistence charge. If you don't pay, your permit can be revoked and you will not be able to operate your installation.

C2.1.If different to details provided in relation to your current PVR Stage I permit, please provide details of the address you wish invoices to be sent to and details of someone we may contact about fees and charges.

.....

.....

.....

Postcode.....Telephone.....

C3. **Commercial confidentiality**

C3.1. Is there any information in the application that you wish to justify being kept from the public register on the grounds of commercial or industrial confidentiality?

If **Yes**, please provide full justification, considering the definition of commercial confidentiality within the EP Regulations (See the General Guidance Manual).

C4. **Data Protection**

The information you give will be used by the Local Authority to process your application. It will be placed on the relevant public register and used to monitor compliance with the permit conditions. We may also use and or disclose any of the information you give us in order to:

- consult with the public, public bodies and other organisations,
- carry out statistical analysis, research and development on environmental issues,
- provide public register information to enquirers,
- make sure you keep to the conditions of your permit and deal with any matters relating to your permit
- investigate possible breaches of environmental law and take any resulting action,
- prevent breaches of environmental law,
- offer you documents or services relating to environmental matters,
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows)
- assess customer service satisfaction and improve our service.

We may pass on the information to agents/ representatives who we ask to do any of these things on our behalf.

It is an offence under regulation 38 of the EP Regulations, for the purpose of obtaining a permit (for yourself or anyone else) to:

- make a false statement which you know to be false or misleading in a material particular,
- recklessly make a statement which is false or misleading in a material particular.

If you make a false statement

- we may prosecute you, and
- if you are convicted, you are liable to a fine or imprisonment (or both).

C5 Declaration: previous offences (delete whichever is inapplicable)

I/We certify

EITHER

No offences have been committed in the previous five years which are relevant to my/our competence to operate this installation in accordance with the EP Regulations.

OR

~~The following offences have been committed in the previous five years which may be relevant to my/our competence to operating this installation in accordance with the Regulations~~:

……

.....

Signature ...  .....

Name ..... Joanne Richards .....

Position.....Operation Services Controller – Licences and Permits .....

Date ...6th December 2016 .....

6 Declaration

C6.1 Signature of current operator(s)*

I/We certify that the information in this application is correct. I/We apply for a permit in respect of the particulars described in this application (including supporting documentation) I/We have supplied.

Please note that each individual operator must sign the declaration themselves, even if an agent is acting on their behalf.

For the application from:

Premises name ..... Warwick Road Service Station .....

Signature .....  .....

Name ..... Joanne Richards .....

Position.....Operation Services Controller – Licences & Permits .....

Date .....6th December 2016 .....

Signature .....

Name .....

Position.....

Date .....

** Where more than one person is defined as the operator, all should sign. Where a company or other body corporate – an authorised person should sign and provide evidence of authority from the board of the company or body corporate.*

Reactive Order Re-print

Order Reference: HRY06409
Work Category: ELECTRICAL
Reference:

Supplier
S & M HOWSON UK
S & M HOWSON (UK) LIMITED

Occupier **Branch No:** 498
CARRONSIDE - MALTHURST PETROLE
CARRON ROAD
FALKIRK
STIRLINGSHIRE
FK2 7SW

Invoice To
MALTHURST PETROLEUM LTD
c/o Bellrock
Peat House
1 Waterloo Way
Leicester
LE1 6LP

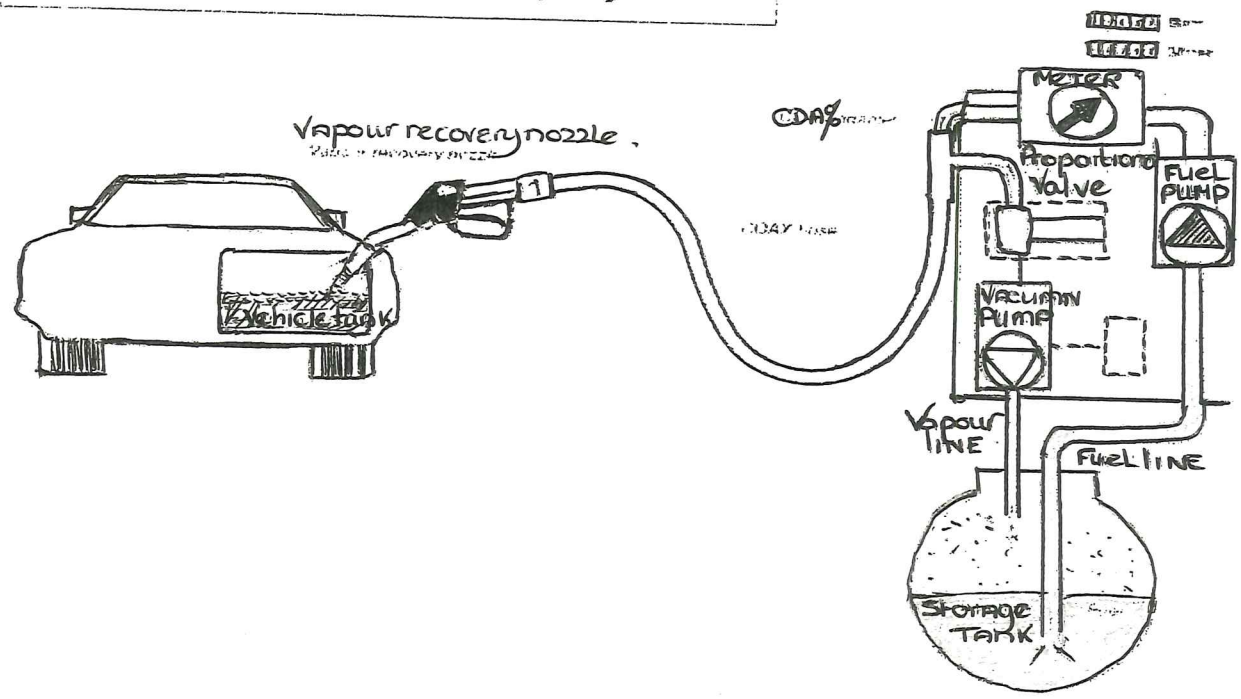
Description:
LIGHTING ON SYNERGY WAVES IS TRIPPING CANOPY LIGHTS

Notes: **Control of Asbestos at Work Regulations: Survey Complete. Asbestos Register can be viewed at site. POS - Silver / PUMPS - Silver / CAR WASH - Silver**
LIGHTING ON SYNERGY WAVES IS TRIPPING CANOPY LIGHTS
Location : FORECOURT
Contact Name: GAJAN
Contact Telephone: 01324228540
Access Times Between 24 and 24
Special Instructions:
--- Additional Notes Added By APOR01 On 14/11/2016 at 12:31 ---
TINA @ SUPPLIER ADVISED THIS WOULD NEED TO GO TOP SIGNAGE ENGINEERS NOT THEM SO HAVE CANCELLED.

Amount £ £200.00
Raised At : 11/14/2016 12:05:36
Raised by: Online
Priority : Urgent 48h

Document Ø2.

Stage 2 Vapour Recovery System



Document Ø2.

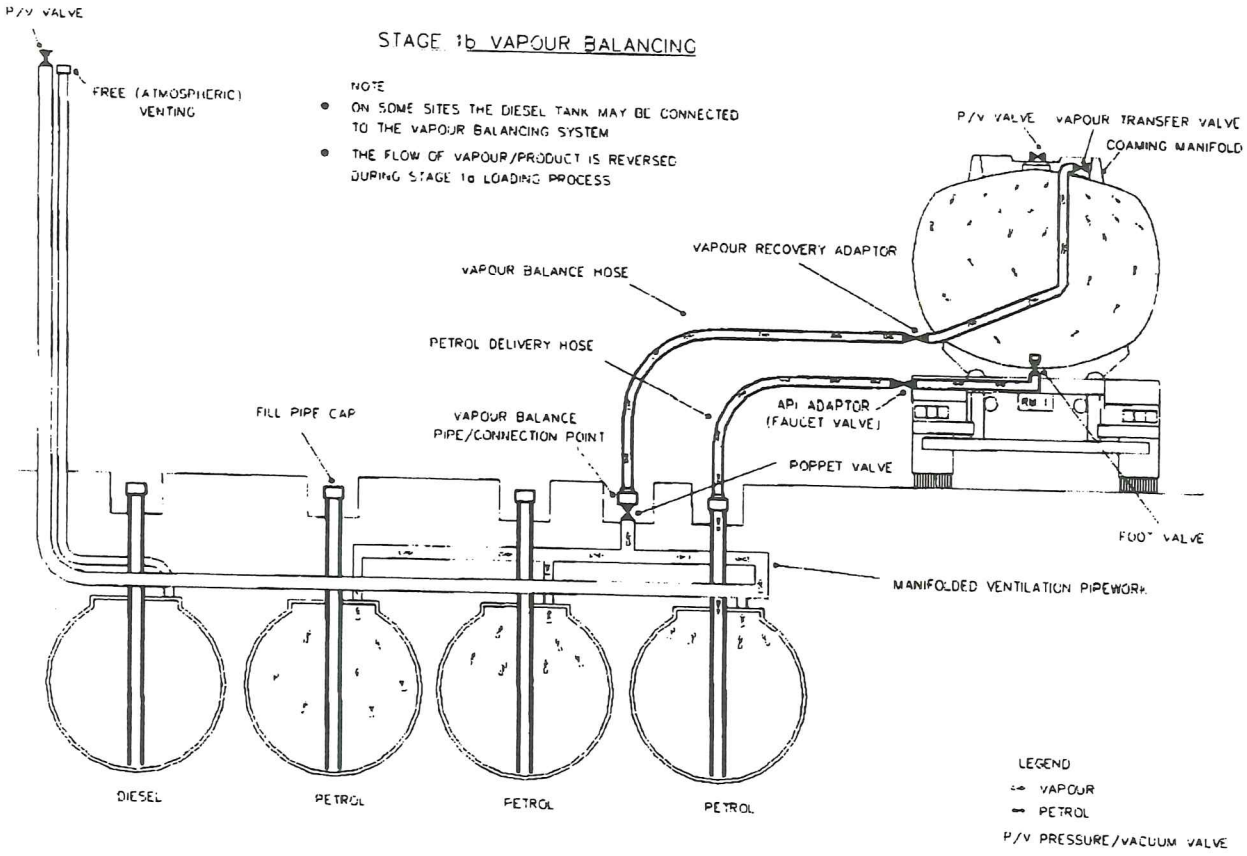


Figure 1 - Stage 1b vapour balancing
Courtesy of West Yorkshire Fire Service

MRH(GB) Ltd– Safety Management System

Measuring Performance

(6) - Facilities Design, Construction and Maintenance

Background:

To minimize the risk to health, safety and the environment all new facilities, and modifications to existing facilities, will be designed and constructed to approved standards.

Facilities will be regularly inspected and maintained, routines for these reflecting the level of possible exposure resulting from plant or equipment failure.

Industry guidelines will be adopted as the standards of construction and maintenance of plant and equipment and at a minimum these must meet regulatory requirements. Also wherever necessary, equipment will be maintained in line with the specific recommendations of the manufacturer.

Any damaged or malfunctioning site equipment will be isolated and repaired as soon as identified by site staff.

System Owner: Manager Engineering, SHE Coordinator

Petroleum Retail Stations

Design and Construction

Petroleum Retail Stations must be designed and constructed in accordance with British Standards, APEA and Energy Institute guidance– specifically EI – "Design, Construction, Modification, Maintenance and Decommissioning of Filling Stations" 3rd Edition.

Deviation from these standards must be sought and agreed to prior construction.

Inspection and Maintenance

Correct levels of inspection and maintenance will be carried out to ensure the safe and efficient operation of storage tanks and associated product handling equipment – including the adoption of a plant / equipment defect system. See "Design, Construction, Modification, Maintenance, and Decommissioning of Filling Stations"

For safety critical equipment - where failure can affect the integrity of the installation – a robust inspection and maintenance routine must be adopted in line with industry standards. These are summarised in the chart below:

Safety Critical Safety Devices for Petroleum Retail Stations – Maintenance and Inspection

Plant /Equipment	Inspection & Maintenance	When	By Who	Relevant Standard or Guideline
Storage Tanks & Pipes	Monitored for leakage by real time wet stock monitoring systems. As such periodic testing is not required as lines are considered to be under test at all times. Inspection of leakage	Constant monitoring. Inspect only when leakage suspected	Wet stock monitoring systems e.g. Fairbanks. Accredited and competent tank maintenance and inspection Company.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • Section 8 o 8.3 o 8.4 o 8.6 o 8.8 o 8.9 • Section 11.5
Vapour Emission Control Systems – Stage 1 and 2	Vapour Recovery stage 1b Inspected for correct operation	Upon Modification If fault suspected The following items will receive a visual inspection or a full systems check on an annual alternating basis: • Vent system emission control device • PV valves and orifice plates	Accredited and competent pipework maintenance and inspection company.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • Section 10.2.12 (Testing Commissioning and Maintenance) • Annex 10.3 (Commissionin

		• Flame arresters – flame arrester elements • Vapour transfer hose integrity (when stored on site) • Vapour transfer hose electrical continuity (when stored on site) • Vapour connection point adapters including valves and lockable tethered dust caps • Positioning and clarity of safety signs • Manifold drain		g and Periodic Testing /Maintenance of Stage 1b System) Process Guidance Note 1/14(13)
	Vapour stage 1b – vapour containment integrity test	On commissioning every 5 years	Accredited and competent pipework maintenance and inspection company.	Process Guidance Note 1/14(13) – Section 4
	Vapour Stage 2 Containment Integrity Test	On commissioning Every 3 years vapour recovery system test Every 5 years vapour return line test. Integrity test will also occur on as a result of any substantial change to the system.	Accredited and competent pipework maintenance and inspection company.	Environmental Permitting (England & Wales) Regulations 2010 EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • 10.3.3 (Commissionin g and Testing) • 10.3.5 (Maintenance) • 10.3.6 (Maintenance Operations on Sites fitted with Stage 2 Vapour Recovery).
	Vapour Recovery stage 2 Inspected for correct operation.	5 Yearly inspection and testing of the following components:	Accredited and competent pipework maintenance and inspection company.	Environmental Permitting (England & Wales) Regulations 2010

	Records of maintenance will be held both on site in the 'Safe Operations Register' and electronically on RITA	• Visual inspection of flame arresters • Physical inspection of co-axial vapour hoses • Testing of vapour pump operation • Testing of regulating system • Visual inspection of non-return valves • Visual inspection of Isolation valves • Visual inspection of shear valves		EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • 10.3.3 (Commissioning and Testing) • 10.3.5 (Maintenance) • 10.3.6 (Maintenance Operations on Sites fitted with Stage 2 Vapour Recovery).
	Vapour Recovery Stage 2 calibration system	3 year check where monitoring system is fitted, annual check where one is not	Accredited and competent pipework maintenance and inspection company.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • 10.3.4 (Calibration)
	Vapour Recovery Stage 2 Pumps (only automatic systems installed)	On commissioning and every 3 years	Accredited and competent maintenance and inspection company.	Process Guidance Note 1/14(13) – Section 4
	Vapour recovery stage 2 visual assessment for damage and functionality verification	Daily as part of forecourt equipment Due Diligence checks	Site Operator	Environmental Permitting (Eng & Wales) Regulations 2010
High Level Alarms	*Strict procedure for accepting deliveries and 'Competent person' prevent overfills.*			Approved Code of Practice L133 – Unloading Petrol from Road Tankers
Bund Area and Bund Wall Integrity	Visual Inspection	Every 3 months	Retailer	Taken from FPS Guide to Good Practice – Depot Maintenance

				See appendix 6.1
Retail Dispensers	Maintenance Contracts in place for faults and repairs. Testing of Pumps Visual checks by Retail staff Hose replacement policy	If fault suspected Following repair or modification Daily/ weekly/ monthly When inspection indicates failure	Accredited and competent dispenser maintenance and inspection Company. Retailer	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations section 9.7
Vehicle Unloading Facility – Discharge	Inspected if leak suspected	When leakage suspected	Accredited and competent pipework maintenance and inspection Company.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations: • 4.4.2 • 8.5.2.1 • 8.5.2.5 • 8.5.3 • 8.6.1.4 • 8.8.3 • 8.9.3 Approved Code of Practice L133 – Unloading Petrol from Road Tankers

Electrical Installations	Electrical equipment in hazardous area Portable equipment Circuits feeding car washes and other areas used by the public Electrical earthing Kiosk Fixed wiring	Annually / upon modification Every 24 months / upon modification Annually / upon modification Annually / upon modification Five years / upon modification	Accredited and competent electrical maintenance and inspection Company with 17th edition and CompEx qualifications or similar.	EI Guidance for the Design, Construction, Modification and Maintenance of Petrol Filling Stations • section 14.10 • annex 14.1 IEE Code of Practice for in-service Inspection and Testing of Electrical Equipment
Car / Jet Wash – Legionnella (above ground reclaim only)	As per risk assessment *MRHRRA02* Weekly temperature check and monthly bacteria sample from following risk areas: • Car wash reclaim tank • Car Wash intercept or • Building water storage tank Systems will be disinfected with biocide in the event of a positive result being obtained.	Weekly/Monthly As required	Retail Site Audit Provider Accredited and competent car wash maintenance and inspection Company.	The Control of Legionella Bacteria in Water Systems (ACOP L8) IP Legionella Assessment of Recycling Car Washes
Air Compressors	Written scheme of examination required	Variable - as indicated by previous written scheme of examination	Accredited and competent pressurised system maintenance and inspection Company.	Pressure System Safety Regulations 2000 Compresses air safety HSG39

LPG	1) Vessels 2) Vessel fittings, pressure relief valves 3) Pipework fittings 4) Routine inspections 5) Dispensers	10 years (unless underground without cathodic protection-seek advice) 5 years (unless stainless steel springs – then 10 years) 10 years Annually Twice per year	Accredited and competent pressurised system maintenance and inspection Company.	LPG Association, Code of Practice 1. Bulk LPG Storage at Fixed Installations Part 3 : 2000, Examination and Inspection Written scheme of examination required for 1 to 4 5) Advise of maintenance engineers
Interceptors	Inspection / cleaning	6 months	Accredited and competent waste disposal Company	EI, Guidelines for soil, groundwater and surface water protection and vapour emission control at petrol filling stations
Fire Extinguishers / Alarms	Inspection	Annual	Accredited and competent fire appliance Company	Regulatory Reform (Fire Safety) Order 2005
Coffee Machines with pressurised boilers	Inspection	Every 14 months	Accredited maintenance company	Pressure System Safety Regulations 2000

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Certificate No. 85 A/L-2.4

Industrie Service

waiting

The TÜV SÜD Test Body for Vapor Recovery Systems,
Westendstr. 199, D-80686 Munich, certifies having conducted tests according the following code:
"Measurement and test methods for the assessment of vapour recovery systems on filling stations- VDI 4205"
on the following vapour recovery system:

Fuel-hose nozzle:	**ELAFLEX ZVA 200 GRV 3**
Hose:	Goodyear **Flexsteel Vapor Assist Hose**
A / L regulator valve[1]:	**ASCO**, Model JV13285902.24/DC, **Type EMXX** with Control board: „Tokheim SAS" Typ **ECVR-SCS** – self calibrating
Vapor valve[2]:	Not required –if internal in fuel-hose nozzle
Vapor recovery pump:	**Dürr, MEX 0831-11**

Test results:

A/L	**99,4 %** at volumetric fuel-flow rate 40 l/min
Average[3] efficiency	**95,4 %**

The following general conditions must be observed during installation:

Maximum volumetric fuel-flow rate:	**40 l/min**
Maximum counter pressure in recovery line:	**50 mbar**
Correction coefficient for system settings with air:	not necessary

Germany
Munich, xxxx.2007

The officially authorized expert

Sz. 20.8.07

Peter Szalata

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[1] regulates air to liquid ratio
[2] opens the vapour path during liquid flow
[3] According to VDI 4205 in normal position and 45° position using VW Polo as reference car under realistic fuelling conditions.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Certificate No. 85 A/L-2.2

TÜV SÜD
Industrie Service

waiting

The TÜV SÜD Test Body for Vapor Recovery Systems,
Westendstr. 199, D-80686 Munich, certifies having conducted tests according the following code:
"Measurement and test methods for the assessment of vapour recovery systems on filling stations- VDI 4205"
on the following vapour recovery system:

Fuel-hose nozzle:	**ELAFLEX ZVA 200 GRV3**
Hose:	**ELAFLEX Conti Slimline 21/8 Coax**
A / L regulator valve[1]:	**ASCO**, Model JV13285902.24/DC, **Type EMXX** with Control board: „Tokheim SAS" Typ **ECVR-SCS** – self calibrating
Vapor valve[2]:	Not required –if internal in fuel-hose nozzle
Vapor recovery pump:	**Dürr, MEX 0831-11**

Test results:

A/L **99,4 %** at volumetric fuel-flow rate 40 l/min

Average[3] efficiency **95,4 %**

The following general conditions must be observed during installation:

Maximum volumetric fuel-flow rate: **40 l/min**

Maximum counter pressure in recovery line: **50 mbar**

Correction coefficient for system settings with air: not necessary

Germany
Munich. xxx.2007

The officially authorized expert

20.8.07

Peter Szalata

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[1] regulates air to liquid ratio
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[3] According to VDI 4205 in normal position and 45° position using VW Polo as reference car under realistic fueling conditions

Document 03

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD
Industrie Service

Certificate No. 85 A/L-8.9

Waiting

The TÜV SÜD Test Body for Vapor Recovery Systems,
Westendstr. 199, D-80686 Munich, certifies having conducted tests according the following code:
"Measurement and test methods for the assessment of vapour recovery systems on filling stations- VDI 4205"
on the following vapour recovery system:

Fuel-hose nozzle:	**OPW 12VW**
Hose:	**Goodyear Hardwall Petrol Hose**
A / L regulator valve[1]:	**ASCO**, Model JV13285902.24/DC, **Type EMXX** with Control board: „Tokheim SAS" Typ **ECVR-SCS** – self calibrating
Vapor valve[2]:	Not required –if internal in fuel-hose nozzle
Vapor recovery pump:	**Dürr, MEX 0831-11**

Test results:

A/L **99,2 %** at volumetric fuel-flow rate 38 l/min

Average[3] efficiency **95,2 %**

The following general conditions must be observed during installation:

Maximum volumetric fuel-flow rate: **38 l/min**

Maximum counter pressure in recovery line: **50 mbar**

Correction coefficient for system settings with air: not necessary

Germany
Munich, xxxxx.2007

The officially authorized expert

20.8.07

Peter Szalata

[1] regulates air to liquid ratio
[2] opens the vapour path during liquid flow
[3] According to VDI 4205 in normal position and 45° position using the reference tank.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Certificate No. 85 A/L-8.7

TÜV SÜD
Industrie Service

Waiting

The TÜV SÜD Test Body for Vapor Recovery Systems,
Westendstr. 199, D-80686 Munich, certifies having conducted tests according the following code:
"Measurement and test methods for the assessment of vapour recovery systems on filling stations- VDI 4205"
on the following vapour recovery system:

Fuel-hose nozzle:	**OPW 12VW**
Hose:	**ELAFLEX Conti Slimline 21/8 Coax**
A / L regulator valve[1]:	**ASCO**, Model JV13285902.24/DC, **Type EMXX** with Control board: „Tokheim SAS" Typ **ECVR-SCS** – self calibrating
Vapor valve[2]:	Not required –if internal in fuel-hose nozzle
Vapor recovery pump:	**Dürr, MEX 0831-11**

Test results:

A/L **99,2 %** at volumetric fuel-flow rate 38 l/min

Average[3] efficiency **95,2 %**

The following general conditions must be observed during installation:

Maximum volumetric fuel-flow rate:	**38 l/min**
Maximum counter pressure in recovery line:	**50 mbar**
Correction coefficient for system settings with air:	not necessary

Germany
Munich, xxxx.2007

The officially authorized expert

20.8.07

Peter Szalata

[1] regulates air to liquid ratio
[2] opens the vapour path during liquid flow
[3] According to VDI 4205 in normal position and 45° position using the reference tank.

Document 04

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

Certificate No. 85 A/L-10.4

waiting

The TÜV SÜD Test Body for Vapor Recovery Systems,
Westendstr. 199, D-80686 Munich, certifies having conducted tests according the following code:
"Measurement and test methods for the assessment of vapour recovery systems on filling stations- VDI 4205"
on the following vapour recovery system:

Fuel-hose nozzle:	**Goodyear, GTR50 VR 4 PLM**
Hose:	**Goodyear Hardwall Petrol Hose**
A / L regulator valve[1]:	**ASCO**, Model JV13285902.24/DC, **Type EMXX** with Control board: „Tokheim SAS" Typ **ECVR-SCS** – self calibrating
Vapor valve[2]:	*Not required –if internal in fuel-hose nozzle*
Vapor recovery pump:	**Dürr, MEX 0831-11**

Test results:

A/L	**99,3 %** at volumetric fuel-flow rate 40 l/min
Average[3] efficiency	**94,2 %**

The following general conditions must be observed during installation.

Maximum volumetric fuel-flow rate:	**40 l/min**
Maximum counter pressure in recovery line:	**50 mbar**
Correction coefficient for system settings with air:	not necessary

Germany
Munich, xxxx.2007

The officially authorized expert

20.8.07

Peter Szalata

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[1] regulates air to liquid ratio
[2] opens the vapour path during liquid flow
[3] According to VDI 4205 in normal position and 45° position using VW Polo as reference car under realistic fuelling conditions.

Document 04

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Certificate No. 85 A/L-10.2

Industrie Service

Waiting

The TÜV SÜD Test Body for Vapor Recovery Systems,
Westendstr. 199, D-80686 Munich, certifies having conducted tests according the following code:
"Measurement and test methods for the assessment of vapour recovery systems on filling stations- VDI 4205"
on the following vapour recovery system:

Fuel-hose nozzle:	**Goodyear, GTR50 VR 4 PLM**
Hose:	**ELAFLEX Conti Slimline 21/8 Coax**
A / L regulator valve[1]:	**ASCO**, Model JV13285902.24/DC, **Type EMXX** with Control board: „Tokheim SAS" Typ **ECVR-SCS** – self calibrating
Vapor valve[2]:	Not required –if internal in fuel-hose nozzle
Vapor recovery pump:	**Dürr, MEX 0831-11**

Test results:

A/L **99,3 %** at volumetric fuel-flow rate 40 l/min

Average[3] efficiency **94,2 %**

The following general conditions must be observed during installation:

Maximum volumetric fuel-flow rate: **40 l/min**

Maximum counter pressure in recovery line: **50 mbar**

Correction coefficient for system settings with air: not necessary

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